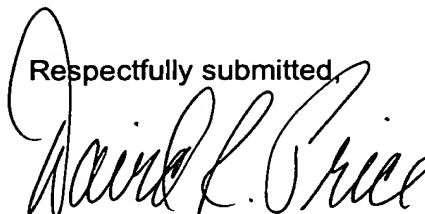


REMARKS

The claims have been amended to remove multiple dependent claims and to conform to U.S. Patent Office practice. Please enter this amendment before calculating the filing fees.

Respectfully submitted,



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Version with markings to show changes made

In the Claims:

3. (Amended) The apparatus of claim 1 [or 2] wherein light source is for launching simultaneously into opposite ends of the waveguide.
4. (Amended) The apparatus of [any one of claims 1 to 3] claim 1 wherein the light source is a single light source.
5. (Amended) The apparatus of [any one of claim 1 to 4] claim 1 wherein the waveguide is one or more optical fibres which forms an event sensitive optical fibre.
6. (Amended) The apparatus of [any one of claims 1 to 5] claim 1 wherein further silica waveguides are connected to the said waveguide at either or both ends in order to add additional delay between the transmissive counter-propagating signals and to provide insensitive lead waveguides.
7. (Amended) The apparatus of [any one of claims 1 to 6] claim 1 wherein the detector means comprises:
 - first and second photodetectors for simultaneously receiving the radiation from the counter-propagating signals in the waveguide; and
 - processing means for receiving signals from the first and second photodetectors for determining the time delay or difference between the signals effected from the same disturbance and therefore determining the location of the sensed event.
9. (Amended) The apparatus of [any one of claims 1 to 8] claim 1 wherein the waveguide is for connection to the structure to monitor the structure.
10. (Amended) The apparatus of [anyone of claims 1 to 8] claim 1 wherein the structure comprises the waveguide for transmitting data along the waveguide from one place to another and the waveguide simultaneously receiving the light from the light source to provide the counter-propagating optical signals so as to enable the integrity and security of the waveguide to be monitored.

11. (Amended) The apparatus according to [any one of claims 1 to 10] claim 1 wherein the detector also identifies or quantifies the parameter from the modified counter-propagating optical signals.

12. (Amended) The apparatus of [any one of claims 1 to 11] claim 1 wherein waveguide is arranged in a loop configuration so that light can be simultaneously launched into both ends of the waveguide from a single light source.

22. (Amended) The apparatus of claim 20 [or 21] wherein the light source is for launching simultaneously into opposite ends of the link.

23. (Amended) The apparatus of [any one of claims 20 to 22] claim 20 wherein the light source is a single light source.

24. (Amended) The apparatus of [any one of claims 20 to 23] claim 20 wherein the detector means comprises:

first and second photodetectors for simultaneously receiving the light from the counter-propagating signals in the link; and

processing means for receiving signals from the first and second photodetectors for determining the time delay or difference between the signals effected from the same disturbance and therefore determining the location of the disturbance.

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